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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,572	11/20/2001	Nobuaki Ogushi	862..1896 D2	8888

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EXAMINER

RAPP, CHAD

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 08/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,572

Applicant(s)

OGUSHI ET AL.

Examiner

Chad Rapp

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-72 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 62-64 and 69-72 is/are allowed.
- 6) ☒ Claim(s) 32-61 and 65-68 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/902,160.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. Claims 32-72 are presented for examination.

Allowable Subject Matter

2. Claims 62-64 and 69-72 are allowed over the prior art of record.
3. As to independent claims 62 and 69, "A first manufacturing factory having a first exposure apparatus and a first LAN system capable of accessing the database and a second manufacturing factory, located at a remote location from said first manufacturing factory, having a second exposure apparatus and a second LAN system capable of accessing the database", in combination with the other claimed elements and features is not taught nor fairly suggested by the prior art of record.
4. The prior art of record does discuss multiple factories, but the idea of having exposure apparatuses in both with both exposure apparatus factories being able to contact a maintenance database containing status data of both is not taught.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 59-61 is rejected under 35 U.S.C. 102(b) as being anticipated by Umatate et al.

Umatate et al. teaches the claimed invention(claim 59) including:

- a. An exposure apparatus installed in the factory for manufacturing product is taught as exposure apparatus are used to manufacture IC devices(col. 1 lines 11-21);

- b. A host computer is taught as a host computer(col. 2 line 14);
- c. A LAN system connecting to the exposure apparatus and the host computer is taught as host computer is connected to exposure apparatus through LAN(col. 3 lines 64-68 and fig. 2)
- d. Wherein the host computer is connected to a remote computer place at a remote location from the factory is taught as the master data processor(col. 4 line 10);
- e. The remote computer providing a database storing maintenance information concerning the exposure apparatus is taught as the central information server(col. 4 line 14);
- f. The maintenance information including status information, of the exposure apparatus which was received from said host computer is taught as the working state information(col. 4 lines 18-19)
- g. Response information which was used for handling a problem indicated by the received status information is taught as modifying or connecting the working parameters(col. 4 lines 1-36).

As to claim 60, Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

As to claim 61, Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 32, 33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. and further in view of Tsuyama et al.

Seaton et al. teaches the claimed invention (claim 32) substantially as claimed including a manufacturing system in a factory comprising:

a. Industrial equipment installed in the factory for manufacturing a product is taught as spray process tools(abstract);

b. A LAN system connecting to the industrial equipment and the host computer is taught as the host computer connects to the plurality of supervisor computers which are connected to the spray tools(col. 2 lines 13-62);

c. Wherein the host computer is connected to a remote computer placed at a remote location from the factory through the internet is taught as connection to the VAX or other SECS-compatible system via an Ethernet for functions to be performed remotely(worldwide)(col. 3 lines 1-4).

Seaton et al. teaches the above listed details of the independent claim 32, however Seaton et al. does not teach: a host computer and the remote computer providing at least one of database storing maintenance information of the industrial equipment and a software library for the industrial equipment.

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Palusamy et al. teaches :

- a. A host computer is taught as a host computer(fig. 4 part 170).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Palusamy et al. because the Palusamy et al. uses a host computer with a remote maintenance system that utilizes global communication networks based on Internet protocols that well known in the art see fig.2. In using an Internet based communication system, the remote maintenance system of Seaton et al. would be able to facilitate uniform access to the system components.

Tsuyama et al. teaches :

- a. The remote computer providing a database storing maintenance information of the industrial equipment is taught as the large capacity storage unit(col. 3 lines 44-50);
- b. Wherein the maintenance information includes both status information received from the host computer concerning the industrial equipment and response information which is used for handling a problem indicated by the status information is taught as failure code, action classification and part number and quality data and condition of failures(col. 3 line 25 to col. 4 line 63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Tsuyama et al. because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

As to claim 33, Tsuyama et al. teaches wherein the database stores information for identifying industrial equipment, trouble states that may occur in the identified industrial

equipment, and corresponding countermeasures against the registered trouble states is taught as failure code, action classification and part number(col. 3 line 25 to col. 4 line 63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Tsuyama et al. because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

As to claim 35, Seaton et al. teaches that wherein the industrial equipment comprises the same types of semiconductor apparatuses is taught as spray process tools(abstract).

9. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. further in view of Tsuyama et al. and further in view of La et al.

Seaton et al., Palusamy et al. and Tsuyama et al. teaches the claimed invention(claim 32) see paragraph number 8 above.

As to claim 34, La et al. teaches that wherein the industrial equipment comprises different types of semiconductor apparatuses is taught as having process equipment identification meaning there are different process equipment(col. 3 lines 56-57).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Seaton et al. with the teachings of La et al. because the database of La et al. relates the defects and errors to the different types of equipment and how to fix the equipment so the appropriate personnel can know what is wrong and how to fix it. Quick maintenance times.

10. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. in view of Tsuyama et al and further in view of Dykes et al.

Seaton et al., Palusamy et al. and Tsuyama et al. teach the claimed invention (claim 32) see paragraph number 8 above.

As to claim 43, Dykes et al. teaches wherein the remote computer comprises a communication security system which inhibits unauthorized entities from accessing the database is taught as providing security access to software application, when security access is authenticated the application gateway outputs the data requested(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Dykes et al. because Seaton describes the idea of security being in the configuration of the various computers(engineering, supervisor bridge etc. see col. 16 lines 23-39). Dykes uses computer also and brings in the improved security ability of using authentication codes to allow different users access to specific part of the system.

11. Claim 44 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. in view of Tsuyama et al in view of Dykes et al. and further in view of Gupta et al.

Seaton et al., Palusamy et al. and Tsuyama et al. teach the claimed invention (claim 32) see paragraph number 8 above.

As to claim 44, Gupta et al. teaches wherein the communication security system inhibits unauthorized entities from accessing the remote computer is taught as a log-in authentication,

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which protects from unauthorized users to log into the computer system or servers(remote computers)(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Gupta et al. because Seaton describes the idea of security being in the configuration of the various computers(engineering, supervisor bridge etc. see col. 16 lines 23-39). The Gupta et al. invention improves on the Dykes et al. and Seaton et al. systems because it provides security at the computer rather than inside the system trying to get access to the data.

12. Claim 51 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. further in view of Tsuyama et al. and further in view of Umatate et al.

Seaton et al., Palusamy et al. and Tsuyama et al. teaches the claimed invention(claim 32) see paragraph number 8 above.

As to claim 51 , Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

As to claim 55, Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

Claim Rejections - 35 USC § 103

13. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

14. Claim 36, 37 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Tsuyama et al..

Kemper et al. teaches the claimed invention(claim 36) including a manufacturing system comprising :

a. A computer which provides a database storing maintenance information concerning industrial equipment is taught as the diagnostic center computer with long term data storage that receives operating condition from a plurality of remote plants(see fig. 1);

b. A first manufacturing factory having first industrial equipment and a first LAN system capable of accessing the database though the internet is taught as plant is connected to a computer and a database(see fig. 1 part 1);

c. A second manufacturing factory, located at a remote location from said first manufacturing factory, having second industrial equipment and a second LAN system capable of accessing the database through the internet is taught as plant is connected to a computer and a database(see fig. 1 part 2).

d. Wherein the database provided by the computer stores maintenance information concerning the first industrial equipment and the second industrial equipment is taught as the diagnostic center computer with long term data storage that receives operating condition from a plurality of remote plants(see fig. 1).

Kemper et al. teaches the above listed details of the independent claim 36, however, Kemper et al. does not teach: wherein the maintenance information includes both status information received from the first and second LAN systems concerning the first industrial equipment and the second industrial equipment and response information which is used for handling problem indicated by the status information.

Tsuyama et al. teaches :

a. Wherein the maintenance information includes both status information received from the first and second LAN systems concerning the first industrial equipment and the second industrial equipment and response information which is used for handling problem indicated by the status information is taught as is taught as failure code, action classification and part number(col. 3 line 25 to col. 4 line 63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Tsuyama et al.

because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

As to claims 37 and 40, Tsuyama et al. teaches wherein the database stores information for identifying an industrial equipment, trouble states that may occur in the identified industrial equipment, and corresponding countermeasures against the registered trouble states is taught as failure code, action classification and part number(col. 3 line 25 to col. 4 line 63).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Tsuyama et al. because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

15. Claims 38 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Tsuyama et al. and further in view of Chen et al.

Kemper et al. and Tsuyama et al. teach the claimed invention(claim 36) see paragraph number 14 above.

As to claim 38, Chen et al. teaches wherein said computer automatically notifies an appropriate personnel of trouble with the industrial equipment is taught as responsible personnel are notified by email(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Chen et al. because this allows immediate response to any problems with the manufacturing facility. This

can decrease the amount of damage done to parts or machines, since the problem is sent immediately to the appropriate personnel.

As to claim 39, Chen et al. teaches wherein said computer automatically sends an e-mail to the appropriate personnel is taught as responsible personnel are notified by email(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Chen et al. because this allows immediate response to any problems with the manufacturing facility. This can decrease the amount of damage done to parts or machines, since the problem is sent immediately to the appropriate personnel.

16. Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of La et al.

Kemper et al. and Tsuyama et al. teach the claimed invention(claim 36) see paragraph number 14 above

As to claim 41, La et al. teaches that wherein said first and second manufacturing factors belong to a single user is taught of having a password security access by a type of user(col. 3 lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of La et al. because the security password allows only access to user and restricts all other users from entering into your system and damaging it or damaging equipment in the factory.

As to claim 42, La et al. teaches wherein said first and second manufacturing factories belong to different users from each other is taught of having a password security access by a type of user(col. 3 lines 1-2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of La et al. because the security password allows only access to user and restricts all other users from entering into your system and damaging it or damaging equipment in the factory.

17. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Tsuyama et al. and further in view of Dykes et al.

Kemper et al. and Tsuyama et al. teach the claimed invention(claim 36) see paragraph number 14 above.

As to claim 45, Dykes et al. teaches wherein the remote computer comprises a communication security system which inhibits unauthorized entities from accessing the database is taught as providing security access to software application, when security access is authenticated the application gateway outputs the data requested(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Dykes et al. because Dykes et al. uses computer and also brings in the improved security ability of using authentication codes to allow different users access to specific part of the system.

18. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Tsuyama et al. in view of Dykes et al. and further in view of Gupta et al.

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Kemper et al. and Tsuyama et al. teach the claimed invention(claim 36) see paragraph number 14 above.

As to claim 46, Gupta et al. teach wherein the communication security system inhibits unauthorized entities from accessing the remote computer is taught as a log-in authentication, which protects from unauthorized users to log into the computer system or servers(remote computers)(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Gupta et al. because The Gupta et al. invention improves on the Dykes et al. and Kemper et al. systems because it provides security at the computer rather than inside the system in trying to get access to the data from already inside the system.

19. Claim 52 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Tsuyama et al. and further in view of Umatate et al.

Kemper et al. and Tsuyama et al. teaches the claimed invention(claim 36) see paragraph number 14 above.

As to claim 52 , Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Umatate et al.

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because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing.

Allows the apparatuses to be corrected independently from the control of the host computer.

As to claim 56, Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claim 47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. in view of Tsuyama et al. and further in view of Dykes et al.

Seaton et al. teaches the claimed invention (claim 47) substantially as claimed including a manufacturing system in a factory comprising:

a. Industrial equipment installed on the factory for manufacturing a product is taught as spray process tools(abstract);

b. A LAN system connecting to the industrial equipment and said host computer is taught as the host computer connects to the plurality of supervisor computers which are connected to the spray tools(col. 2 lines 13-62);

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c. Wherein the host computer is connected to a remote computer placed at a remote location from the factory through the internet is taught as connection to the VAX or other SECS-compatible system via an Ethernet for functions to be performed remotely(worldwide)(col. 3 lines 1-4).

Seaton et al. teaches the above listed details of the independent claim 47, however, Seaton et al. does not teach: A host computer connected to an internet, wherein the remote computer provides a database storing maintenance information concerning the industrial equipment and comprises a communication security system which inhibits unauthorized entities from accessing the database.

Palusamy et al. teaches :

a. A host computer connected to an internet is taught as a host computer(fig. 4 part 170).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Palusamy et al. because the Palusamy et al. uses a host computer with a remote maintenance system that utilizes global communication networks based on Internet protocols that well known in the art see fig.2. In using an Internet based communication system, the remote maintenance system of Seaton et al. would be able to facilitate uniform access to the system components.

Tsuyama et al. teaches :

a. Wherein the remote computer provides a database storing maintenance information concerning the industrial equipment is taught as the large capacity storage unit(col. 3 lines 44-50).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Tsuyama et al. because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

Dykes et al. teaches :

- a. Comprises a communication security system which inhibits unauthorized entities from accessing the database is taught as providing security access to software application, when security access is authenticated the application gateway outputs the data requested (abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Dykes et al. because Seaton describes the idea of security being in the configuration of the various computers (engineering, supervisor bridge etc. see col. 16 lines 23-39). Dykes uses computer also and brings in the improved security ability of using authentication codes to allow different users access to specific part of the system.

22. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. in view of Tsuyama et al. in view of Dykes et al. and further in view of Gupta et al.

Seaton et al., Palusamy et al., Tsuyama et al. and Dykes et al. teach the claimed invention (claim 47) see paragraph number 21 above.

As to claim 48, Gupta et al. teaches wherein the communication security system inhibits unauthorized entities from accessing the remote computer is taught as a log-in authentication, which protects from unauthorized users to log into the computer system or servers(remote computers)(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Gupta et al. because Seaton describes the idea of security being in the configuration of the various computers(engineering, supervisor bridge etc. see col. 16 lines 23-39). The Gupta et al. invention improves on the Dykes et al. and Seaton et al. systems because it provides security at the computer rather than inside the system trying to get access to the data.

23. Claim 53 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seaton et al. in view of Palusamy et al. further in view of Tsuyama et al. in view of Dykes et al. and further in view of Umatate et al.

Seaton et al., Palusamy et al., Tsuyama et al. and Dykes et al. teaches the claimed invention(claim 47) see paragraph number 21 above.

As to claim 53, Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Umatate et al.

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because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing.

Allows the apparatuses to be corrected independently from the control of the host computer.

As to claim 57, Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Seaton et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

Claim Rejections - 35 USC § 103

24. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

25. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. in view of Tsuyama et al. and further in view of Dykes et al.

Kemper et al. teaches the claimed invention (claim 49) substantially as claimed including a manufacturing system in a factory comprising:

a. A first manufacturing factory having the first industrial equipment and a first LAN system capable of accessing the database through the internet is taught as plant is connected to a computer and a database(see fig. 1 part 1);

b. A second manufacturing factory, located at a remote location from said first manufacturing factory, having second industrial equipment and a second LAN system capable of

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accessing the database through the internet is taught as plant is connected to a computer and a database(see fig. 1 part 2);

c. Wherein the computer provides a database storing maintenance information concerning the first industrial equipment and the second industrial equipment is taught as the diagnostic center computer with long term data storage that receives operating condition from a plurality of remote plants(see fig. 1).

Kemper et al. teaches the above listed details of the independent claim 49, however, Kemper et al. does not teach: a computer which is connected to an internet provides a database storing information concerning industrial equipment and comprises a communication security system which inhibits unauthorized entities from accessing the database.

Palusamy et al. teaches :

a. A computer which is connected to an internet is taught as a host computer(fig. 4 part 170).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Palusamy et al. because the Palusamy et al. uses a host computer with a remote maintenance system that utilizes global communication networks based on Internet protocols that well known in the art see fig.2. In using an Internet based communication system, the remote maintenance system of Kemper et al. would be able to facilitate uniform access to the system components.

Tsuyama et al. teaches :

a. Provides a database storing information concerning industrial equipment is taught as the large capacity storage unit(col. 3 lines 44-50).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Tsuyama et al. because Tsuyama et al. sets up a system for various factories using data tables that matches failures with causes to make repair and maintenance quicker and easier.

Dykes et al. teaches :

- a. Comprises a communication security system which inhibits unauthorized entities from accessing the database is taught as providing security access to software application, when security access is authenticated the application gateway outputs the data requested(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Dykes et al. because Dykes et al. uses computer also and brings in the improved security ability of using authentication codes to allow different

26. Claim 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. in view of Tsuyama et al. in view of Dykes et al. and further in view of Gupta et al.

Kemper et al., Palusamy et al., Tsuyama et al. and Dykes et al. teach the claimed invention(claim 49) see paragraph number 25 above.

As to claim 50, Gupta et al. teaches wherein the communication security system inhibits unauthorized entities from accessing the remote computer is taught as a log-in authentication,

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which protects from unauthorized users to log into the computer system or servers(remote computers)(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Gupta et al. because The Gupta et al. invention improves on the Dykes et al. and Kemper et al. systems because it provides security at the computer rather than inside the system trying to get access to the data.

27. Claim 54-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kemper et al. in view of Palusamy et al. in view of Tsuyama et al. in view of Dykes et al. and further in view of Umatate et al.

Kemper et al., Palusamy et al., Tsuyama et al. and Dykes et al. teach the claimed invention(claim 49) see paragraph number 25 above.

As to claim 54 , Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

As to claim 58, Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings of Kemper et al. with the teachings of Umatate et al. because both deal with monitoring, diagnosing and controlling of semiconductor manufacturing. Allows the apparatuses to be corrected independently from the control of the host computer.

Claim Rejections - 35 USC § 103

28. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

29. Claims 65-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Umatate et al. in view of Dykes et al.

Umatate et al. teaches the claimed invention (claim 65) substantially as claimed including a manufacturing system in a factory comprising:

- a. An exposure apparatus installed in the factory for manufacturing product is taught as exposure apparatus are used to manufacture IC devices(col. 1 lines 11-21);
- b. A host computer is taught as a host computer(col. 2 line 14).
- c. A LAN system connecting to the exposure apparatus and said host computer is taught as host computer is connected to exposure apparatus through the LAN(col. 3 lines 64-68 and fig. 2);

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d. Wherein the host computer is connected to a remote computer placed at a remote location from the factory is taught as the master data processor(col. 4 line 10)

e. The remote computer provides a database storing maintenance information concerning the exposure apparatus is taught as the central information server(col. 4 line 14).

Umatate et al. teaches the above details of the independent claim 65, however, Umatate et al. does not teach: comprises a communication security system which inhibits unauthorized entities from accessing the database.

Dykes et al. teaches :

a. Comprises a communication security system which inhibits unauthorized entities from accessing the database is taught as providing security access to software application, when security access is authenticated the application gateway outputs the data requested(abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made or used to modify the teachings Umatate et al. with the teachings of Dykes et al. because Dykes uses computer also and brings in the improved security ability of using authentication codes to allow different.

As to claim 67, Umatate et al. teaches exposing a wafer by the industrial equipment of the manufacturing system and developing the exposed wafer is taught as the supply of plural substrates(wafers) are to be exposed in each of the plural exposure apparatus(abstract and col. 1 lines 13-21).

As to claim 68 , Umatate et al. teaches a product being manufactured by the manufacturing system is taught as the device to manufactured(col. 2 lines 11-23).

Conclusion

30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chad Rapp whose telephone number is (703)306-4528. The examiner can normally be reached on Mon-Fri 11:00-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (703)308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chad Rapp
Examiner
Art Unit 2125

cjr

Albert W. Paladini 8-6-04
ALBERT W. PALADINI
PRIMARY EXAMINER